

# Wisconsin Standards for Information and Technology Literacy

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## What is Information and Technology Literacy Education?

Information and Technology Literacy is the ability of an individual, working independently or with others, to use tools, resources, processes, and systems responsibly to access and evaluate information in any medium, and to use that information to solve problems, communicate clearly, make informed decisions, and construct new knowledge, products, or systems. The standards outlined in this document provide an important foundation to prepare students to be college and career ready.

## A Vision for Information and Technology Literacy

Today's society is witnessing an unprecedented explosion of information and use of digital resources. In an environment where information is doubling every 12 to 18 months and digital resources are becoming an increased component of the classroom and the workplace, students face both difficult challenges and increased opportunities. The successful students, workers, and citizens of tomorrow will be self-directed, agents of their own learning.

*Wisconsin's Academic Standards for Information and Technology Literacy* identifies and defines the knowledge and skills essential for all Wisconsin students to access, evaluate, and use information and technology to engage in and take ownership of their learning. These standards connect and interrelate current perspectives in information literacy, media literacy, and technology literacy into a unified conceptual framework. This framework demonstrates processes for rethinking education, adapting to a constantly changing technological landscape and preparing students to enter an increasingly global economy.

As educators, we are preparing students for a future that we cannot yet imagine. Empowering students to become lifelong learners and providing them with the skills to face future challenges resourcefully and creatively is critical. It's not about using digital tools to support outdated education strategies and models; it's about tapping into technology's potential to amplify human capacity for collaboration, creativity and communication. It's about leveling the playing field and providing young people worldwide with equitable access to powerful learning opportunities.

## Introduction

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## Information and Technology Literacy Education in Wisconsin

The purpose of these standards is to identify information and technology content and performance standards for all students throughout the kindergarten to grade twelve (K-12) curriculum. The standards are designed to be integrated into the various content and skill areas of the school curriculum. The focus is on learning *with* information and technology rather than learning *about* information and technology. This integration will be varied and diverse based on the curricula of individual schools and school systems. The task force hopes that much reflective dialogue will occur in school districts among administrators, curriculum directors, library media specialists, technology coordinators, teachers, parents, and community members as each district adopts or modifies these standards and integrates them into the local instructional program for students.

The focus is on a sequential and broad set of information and technology content and performance standards that are necessary for full development of skills for “learning how to learn” addressed in the core areas of the K-12 curriculum. The task force recognizes that some of these standards are included in other academic standards and believes this inclusion underscores the importance of information and technology literacy standards by providing entry points for integrating them into a variety of curricular areas. The task force also recognizes that elective programs or advanced courses that are not a part of the curriculum required for all students may require additional or very specific technology skills beyond those listed in these standards.

Finally, it is important to recognize that accomplishing many of the performance standards listed here will require access to technology by individual students or student workgroups. The task force believes these standards will be achieved with a strong district commitment to a technological infrastructure including sufficient equipment and access, materials and staffing; appropriate technical support; and a comprehensive, ongoing program of teacher training and staff development.

## Wisconsin's Approach to Standards for Information and Technology Literacy

With the release of the Wisconsin Standards for Information and Technology Literacy, teachers have access to the foundational knowledge and skills needed to prepare students to be college and career ready. Empowering students to become lifelong learners and providing them with the skills to face future challenges resourcefully and creatively is critical. It's not about using digital tools to support outdated education strategies and models; it's about tapping into technology's potential to amplify human capacity for collaboration, creativity and communication. It's about leveling the playing field and providing young people worldwide with equitable access to powerful learning opportunities.

The learning priorities and performance indicators contained within each set of ITL standards consists of knowledge and skills specific to each of the seven strands:

- Empowered Learner
- Digital Citizen
- Knowledge Constructor
- Innovative Designer
- Computational Thinker
- Creative Communicator
- Global Collaborator

These are, of course, critical as these skills intersect with all content areas. In addition, there are many knowledge areas, skills and dispositions that are common to the pursuit of careers and postsecondary education in many fields.

Numerous existing sets of standards and standards-related documents have been used in developing the Wisconsin Standards for Information and Technology Literacy. These include:

- International Society for Technology in Education (ISTE) <https://www.iste.org/>
- Common Sense Media: Digital Citizenship Curriculum <https://www.commonsense.org/education/digital-citizenship>
- Positive Behavioral Interventions and Support (PBIS) <https://www.pbis.org/school>

- Wisconsin Department of Public Instruction (DPI): Information and Technology Literacy Standards (c.1998) <https://dpi.wi.gov/sites/default/files/imce/imt/pdf/infotech.pdf>
- AASL: American Association of School Librarians (AASL) [Standards for the 21st Century Learner](#)
- The University of Adelaide: Researcher Skill Development Framework [https://www.adelaide.edu.au/rsd/framework/RSD7\\_13Nov\\_15\\_JM.pdf](https://www.adelaide.edu.au/rsd/framework/RSD7_13Nov_15_JM.pdf)
- Wisconsin Standards for Business and Information Technology [https://dpi.wi.gov/sites/default/files/imce/cte/pdf/BIT\\_Stnds.pdf](https://dpi.wi.gov/sites/default/files/imce/cte/pdf/BIT_Stnds.pdf)
- WI Academic Standards - Computer Science
- Wisconsin Digital Learning Plan (c2016) - <https://dpi.wi.gov/digital-learning>
- Florida Center for Instructional Technology [The Technology Integration Matrix](#)
- Wisconsin Digital Learning Plan - <https://dpi.wi.gov/digital-learning>
- Future Ready Schools Framework - <https://dashboard.futurereadyschools.org/framework>

As with all the standards, the Wisconsin Standards for Information and Technology Literacy may be taught and integrated through a variety of classes and experiences. Each district, school and program area should determine the means by which students meet these standards. Through the collaboration of multiple stakeholders, these foundational standards will set the stage for high-quality, successful, contemporary information and technology literacy courses and programs throughout Wisconsin's K-12 systems.

## Standard Structure

The Wisconsin Standards for Information and Technology Literacy follow a similar structure to all Wisconsin State Standards.

### Standard Coding



### Standard Formatting

- **Standard:** Broad statement that tells what students are expected to know or be able to do.
- **Learning Priority:** Breaks down the broad statement into manageable learning pieces
- **Performance Indicator by grade band:** Measurable degree to which a standard has been developed or met.

<b>Discipline: Information and Technology Literacy (ITL)</b>				
<b>Content Area: Empowered Learner (EL)</b>				
<b>Standard: EL1 - Students leverage digital tools and strategies to take an active role in choosing and achieving their learning goals.</b>				
	<b>Performance Indicators (By Grade Band)</b>			
<b>Learning Priority</b>	<b>K-2 (e)</b>	<b>3-5 (i)</b>	<b>6-8 (m)</b>	<b>9-12 (h)</b>
<b>EL1.a: Goal Setting and Reflecting</b>	EL1.a.1.e: Understand and set personal learning goals with support from an educator.	EL1.a.3.i: Create learning goals-and select the digital tools to support them in collaboration with an educator.	EL1.a.5.m: Develop personal learning goals and select and manage appropriate digital tools to achieve them.	ITL 1.a.6.h: Articulate personal learning goals and develop strategies leveraging digital tools to achieve them.
	EL1.a.2.e: Utilize appropriate digital tools to demonstrate knowledge and reflect on the learning process.	EL1.a.4.i: Utilize digital tools to reflect on and revise the learning process as needed to achieve goals.	EL1.a.6.m: Utilize digital tools to reflect on successes, areas of improvement, and to make necessary revisions.	ITL 1.a.7.h: Utilize digital tools to reflect on successes, areas of improvement, and to make necessary revisions and adjust for future learning.

## Grade Bands

Grade bands of K-2, 3-5, 6-8 and 9-12 align to typical elementary, middle and high school levels.

- Grade band K-2 and 3-5 performance indicators represent knowledge and skills that should be integrated throughout the elementary curriculum.
- Information and Technology Literacy should be a core addition in all curricular areas at the middle level to enhance content and learning. Awareness, exploration and building foundational skills should occur in middle school.
- Information and Technology Literacy, at the high school level, must go beyond the basic foundational skills and knowledge. Students should be building skills and knowledge that are transferable across all content areas as well as extend to the workplace environment to ensure students are college and career ready.

# Content Area: Empowered Learner (EL)

**Discipline: Information and Technology Literacy (ITL)**

**Content Area: Empowered Learner (EL)**

**Standard: EL1 - Students leverage digital tools and strategies to take an active role in choosing and achieving their learning goals.**

	Performance Indicators (By Grade Band)			
Learning Priority	K-2 (e)	3-5 (i)	6-8 (m)	9-12 (h)



<b>EL1.a: Goals and Reflect</b>	<b>EL1.a.1.e:</b> Identify the purpose of and set personal learning goals with support from an educator.	<b>EL1.a.3.i:</b> Create learning goals-and select the digital tools to support them in collaboration with an educator.	<b>EL1.a.5.m:</b> Create personal learning goals and select and manage appropriate digital tools to achieve those goals.	<b>EL1.a.6.h:</b> Create and articulate personal learning goals and develop strategies leveraging digital tools to achieve those goals.
	<b>EL1.a.2.e:</b> Utilize appropriate digital tools to demonstrate knowledge and reflect on the learning process.	<b>EL1.a.4.i:</b> Utilize digital tools to reflect on and revise the learning process as needed to achieve goals.	<b>EL1.a.6.m:</b> Utilize digital tools to reflect on successes, areas of improvement, and to make necessary revisions.	<b>EL1.a.7.h:</b> Utilize digital tools to reflect on successes, areas of improvement, and to make necessary revisions and adjust for future learning.
<b>EL1.b: Build Network to Support Learning</b>	<b>EL1.b.1.e:</b> Identify digital tools that can be used to connect with others to enhance their learning with guidance from an educator.	<b>EL1.b.2.i:</b> Select digital tools to help build a network of experts and peers to enrich the learning experience with educator support.	<b>EL1.b.3.m:</b> Develop and pursue online networks of experts and peers to support learning processes and outcomes.	<b>EL1.b.4.h:</b> Build a professional online presence to connect with experts and peers to enhance learning processes and outcomes and prepare for future endeavors.
<b>EL1.c: Create Personalized Learning Environment</b>	<b>EL1.c.1.e:</b> Explore and Identify digital tools that can be used to support personalized learning with guidance from an educator.	<b>EL1.c.2.i:</b> Explore and select digital tools to customize their personal learning environments.	<b>EL1.c.3.m:</b> Leverage digital tools to customize learning by making adjustments to their physical and online environments to support the learning process.	<b>EL1.c.4.h:</b> Leverage digital tools to customize physical and online learning environments in ways that enrich the learning process.

<b>EL1.d: Seek and Utilize Feedback</b>	<b>EL1.d.1.e:</b> Receive performance feedback from digital tools and make adjustments based on that feedback with educator guidance.	<b>EL1.d.3.i:</b> Seek feedback from both an authentic audience and features embedded in digital tools to collect data and make learning adjustments based on that feedback with educator guidance.	<b>EL1.d.5.m:</b> Seek performance feedback from an authentic audience and from features embedded in digital tools to collect and analyze data and make learning adjustments based on that feedback.	<b>EL1.d.7.h:</b> Utilize digital tools to seek feedback from digital and authentic audiences, then analyze data to make adjustments to and justify outcomes.
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**Standard: EL2 - Students leverage digital tools and strategies to demonstrate their understanding and achievement of their learning goals. (ISTE 2016)**

<b>EL2.a: Demonstrate Learning</b>	<b>EL2.a.1.e:</b> Use age-appropriate digital resources to produce and publish information.	<b>EL2.a.2.i</b> Identify age-appropriate digital tools to produce and publish information for an identified target audience.	<b>EL1.d.3.m</b> <b>Evaluate effectiveness of different digital tools to communicate information with multiple audiences.</b>	<b>EL1.d.4.h</b> Select appropriate digital resources to develop, implement and evaluate communication an authentic audience.
<b>EL2.b: Understanding and apply functions and concepts</b>	<b>EL2.b.1.e:</b> Explore a variety of digital tools that will support learning and begin to demonstrate an understanding of how knowledge can be transferred between tools.	<b>EL2.b.2.i:</b> Explore age-appropriate digital tools and recognize the pattern in the fundamental concepts across similar digital tools. Begin to transfer learning between tools and/or learning environments.	<b>EL2.b.3.m:</b> Navigate a variety of digital tools and transfer knowledge and skills to begin to troubleshoot and explore emerging technologies.	<b>EL2.b.4.h:</b> Understand the fundamental concepts of digital tool operations, demonstrate the ability to choose, use and troubleshoot current digital tools, and transfer knowledge to explore emerging technologies.

# Content Area: Digital Citizen (DC)

**Discipline: Information and Technology Literacy (ITL)**

**Content Area: Digital Citizen (DC)**

**Standard: DC1 - Students recognize the rights, responsibilities, and opportunities of living, learning and working in an interconnected digital world.**

	<b>Performance Indicators (By Grade Band)</b>			
<b>Learning Priority</b>	<b>K-2 (e)</b>	<b>3-5 (i)</b>	<b>6-8 (m)</b>	<b>9-12 (h)</b>
<b>DC1.a: Cultivate and manage digital identity and reputation</b>	DC1.a.1.e: Discover that information put online creates a digital footprint and can leave a “trail” online (digital footprint).	DC1.a.5.i: Identify information that should not be shared online because it is private and personal.	DC1.a.9.m: Demonstrate safe digital actions and understand information shared digitally is public and can be searched, copied and potentially seen by large, invisible audiences.	DC1.a.13.h: Manage digital identity and practice positive online responsibilities to avoid inappropriate forms of self disclosure.

	<b>DC1.a.2.e:</b> Relate positive behavior offline to positive behavior online.	<b>DC1.a.6.i:</b> Identify the traits of a positive and negative online identity.	<b>DC1.a.10.m:</b> Analyze personal online information to distinguish whether it is helpful or harmful to their reputation and image, explain why, and practice posting in a guided environment.	<b>DC1.a.14.h:</b> Choose information to post online that positively affects their image and future opportunities, including chances for college admission or employment.
	<b>DC1.a.3.e:</b> Identify characters or people who have a positive profile.	<b>DC1.a.7.i:</b> Create an example of a positive online profile and share in a classroom environment.	<b>DC1.a.11.m:</b> Reflect on the risks and benefits of presenting their identities in different ways online.	<b>DC1.a.15.h:</b> Articulate the risks and benefits of assuming different personas online, and think critically about what it means to be genuine in an online context.
	<b>DC1.a.4.e:</b> Recognize that online images may not be real.	<b>DC1.a.8.i:</b> Recognize that photos can be altered digitally and identify the pros and cons of alteration.	<b>DC1.a.12.m:</b> Discuss media messages that may frame the way people use, interpret and respond to photos on social network sites and discuss the influence on society.	<b>DC1.a.16.h:</b> Analyze broader norms and media messages that may frame the way people use, interpret and respond to photos on social network sites and discuss the influence on society.
<b>DC1.b: Manage personal data to maintain digital privacy and security</b>	<b>DC1.b.1.e:</b> Understand the functions of usernames and passwords.	<b>DC1.b.5.i:</b> Utilize strong and secure passwords to protect private account information.	<b>DC1.b.9.m:</b> Develop strategies to manage secure passwords.	<b>DC1.b.13.h:</b> Utilize secure password protection practices and management.

	<b>DC1.b.2.e:</b> Discover identity and explore what it means to be “me.”	<b>DC1.b.6.i:</b> Demonstrate an understanding of what personal data is, how to keep it private and how it might be shared online.	<b>DC1.b.10.m:</b> Create and manage strategies to protect their personal data and identify and follow online application terms and conditions (age 13 requirements) and understand risky forms of age-sensitive self-disclosure online and possible legal consequences.	<b>DC1.b.14.h:</b> Identify situations where data-collection technology is used to track their navigation online and decide when it is or is not appropriate.
	<b>DC1.b.3.e:</b> Learn to seek an adult they trust if a website asks for any information and begin to identify inappropriate online information.	<b>DC1.b.7.i:</b> Identify types of information and terms that can put a person at risk for identity theft and other scams and safely manage unwanted messages.	<b>DC1.b.11.m:</b> Recognize strategies that intend harm and access private information and define the different types of malicious threats, including viruses, phishing and identity theft.	<b>DC1.b.15.h:</b> Develop strategies to guard against malicious threats including viruses, phishing and identity theft and recognize the importance of security protocols.
	<b>DC1.b.4.e:</b> Recognize that online images may not be real.	<b>DC1.b.8.i:</b> Recognize that photos can be altered digitally and identify the pros and cons of this.	<b>DC1.b.12.m:</b> Compare and contrast attitudes toward gender, race, sexual orientation, etc. regarding editing, posting, and commenting on personal photos that are posted on social network sites.	<b>DC1.b.16.h:</b> Analyze broader norms and media messages that may frame the way people use and interpret photos on social network sites and discuss the influence on society.

<b>Standard: DC2 - Students will demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.</b>				
	<b>Performance Indicators (By Grade Band)</b>			
<b>Learning Priority</b>	<b>K-2 (e)</b>	<b>3-5 (i)</b>	<b>6-8 (m)</b>	<b>9-12 (h)</b>
<b>DC2.a: Use information, media and digital resources in a responsible manner.</b>	<b>DC2.a.1.e:</b> Identify guidelines for acceptable use of Internet and other resource materials.	<b>DC2.a.2.i:</b> Recognize difference between copying and summarizing.	<b>DC2.a.3.m:</b> Demonstrate responsible use of Internet, social media, and other materials and understand consequences of violating school policy.	<b>DC2.a.4.h:</b> Assess the need for different information policies and user agreements in a variety of settings (workplace, school, government, etc.).
<b>DC2.b: Respect intellectual property rights.</b>	<b>DC2.b.1.e:</b> Recognize that quoted materials must be have permission for use or citation.	<b>DC2.b.2.i:</b> Explain the concept of intellectual property rights and explain how copyrights protect authors and producers.	<b>DC2.b.3.m:</b> Explain the concept of “fair use” as it pertains to copyright law and be able to create citations for print, graphic, audio and digital media/resources.	<b>DC2.b.4.h:</b> Describe how to correspond with authors, publishers, or producers to obtain permission to use copyrighted materials while understanding legal consequences of plagiarism.
<b>DC2.c: Recognize the rights and responsibilities of intellectual freedom in a democratic society.</b>	<b>DC2.c.1.e:</b> Acknowledge the right of classmates to express opinions different from their own.	<b>DC2.c.4.i:</b> Define the concept of intellectual freedom and identify examples of censorship.	<b>DC2.c.7.m:</b> Identify examples and explain the implications of censorship in the United States and in other countries and recognize that the free-flow of information helps make informed citizenry	<b>DC2.c.10.h:</b> Understand the importance of equitable access to information and recommend strategies for ensuring others have equitable access to information, media, resources and technology.

			decisions for the common good.	
	<b>DC2.c.2.e:</b> Explore what information is appropriate to put online through teacher-guided online activities.	<b>DC2.c.5.i:</b> Participate responsibly and respectfully in an online community.	<b>DC2.c.8.m:</b> Engage and describe positive aspects of online communication and the importance of acting responsibly when carryout relationships over digital media.	<b>DC2.c.11.h:</b> Demonstrate how to present an authentic and positive image online.
	<b>DC2.c.3.e:</b> Role play how to show respect in social situations. (face-to-face and online communications)	<b>DC2.c.6.i:</b> Recognize a quality comment and response.	<b>DC2.c.9.m:</b> Discuss the impact that negative comments can have on both their targets and their viewers.	<b>DC2.c.12.h:</b> Recognize hate speech and its impact on individuals, groups, and communities, both online and offline.

# Content Area: Knowledge Constructor (KW)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Knowledge Constructor (KC)				
Standard: KC1 - Students critically curate a variety of resources using digital tools to construct knowledge.				
	Performance Indicators (By Grade Band)			
Learning Priority	K-2 (e)	3-5 (i)	6-8 (m)	9-12 (h)
KC1.a: Plan and employ effective research strategies	KC1.a.1.e: Utilize knowledge of the alphabet to search and use directories; use basic keyword search	KC1.a.4.i: Explore and use different keyword searches such as using multiple words, synonyms, and alternative	KC1.a.7.m: Demonstrate and practice using a variety of search strategies for effective and efficient online searches.	KC1.a.10.h: Utilize a range of digital resources effectively and safely by applying a variety of search strategies.



	techniques to locate information.	words and phrases; and refine searches by drawing inferences to explain-search results.		
	<b>KC1.a.2.e:</b> Utilize digital tools and resources, contained within a classroom platform or otherwise provided by the teacher, to find information on topics of interest.	<b>KC1.a.5.i:</b> Collaborate with a teacher to employ appropriate research techniques to locate and access print and digital resources that help in the learning process.	<b>KC1.a.8.m:</b> Demonstrate and practice the ability to effectively utilize research strategies to locate and access appropriate print and digital resources in support of learning.	<b>KC1.a.11.h:</b> Plan and employ effective research strategies to locate and access information and other resources for intellectual or creative pursuits.
	<b>KC1.a.3.e:</b> Follow an inquiry-based process by forming simple questions and begin exploring ways to answer them using print and digital resources.	<b>KC1.a.6.i:</b> Follow an inquiry-based process by generating questions and exploring different ways to locate and evaluate sources that provide needed information.	<b>KC1.a.9.m:</b> Demonstrate and practice using an inquiry-based process that involves asking questions, investigating the answers, and developing new understandings for personal or academic learning activities.	<b>KC1.a.12.h:</b> Utilize an inquiry-based process to deepen content knowledge, connect academic learning with the real world, pursue personal interests, and investigate opportunities for personal growth.
<b>KC1.b: Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.</b>	<b>KC1.b.1.e:</b> -Identify age-appropriate criteria for evaluating digital content with guidance from an educator.	<b>KC1.b.4.i:</b> Evaluate digital sources for accuracy, perspective, credibility and relevance.	<b>KC1.b.6.m:</b> Practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance.	<b>KC1.b.9.h:</b> Independently evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
	<b>KC1.b.2.e:</b> Explore various websites identifying different information and graphics.	<b>KC1.b.5.i:</b> Explore digital resources to determine credibility and accuracy.	<b>KC1.b.7.m:</b> Determine if information is relevant to the question by if the purpose of the the product or presentation is	<b>KC1.b.10.h:</b> Assess the quality of evidence and data found in selected sources on basis of accuracy, validity,

			to inform, entertain, or persuade while distinguishing between fact and opinion in the research.	appropriateness for needs, importance, and social and cultural context. Evaluate information and graphics for prejudice, false data, misrepresentation and misleading data.
	<b>KC1.b.3.e:</b> Understand websites can influence decision-making.	<b>KC1.b.6.i:</b> Identify how websites can be used to appeal to different groups to evoke a response and/or action	<b>KC1.b.8.m:</b> Understand the importance of leveraging multiple viewpoints in decision making and implementation	<b>KC1.b.11.h:</b> Select information that is related to a problem or question while using formats and genre most appropriate to the content. Establish criteria in judging the information in this process.
<b>KC1.c. Curate information from digital resources</b>	<b>KC1.c.1.e:</b> Explore a variety of teacher-selected, curated content tools to organize and acquire information.	<b>KC1.c.3.i:</b> Organize information from a variety of teacher-selected, curated content and make meaningful, thematic connections between resources.	<b>KC1.c.5.m:</b> Locate and collect resources from a variety of sources and organize assets into curated collections for a wide range of audiences, projects, and purposes.	<b>KC1.c.7.h:</b> Locate, collect and organize content from various sources into focused groups and recognize patterns and distinctions within those sources.
	<b>KC1.c.2.e:</b> Identify collections of artifacts from curated information that demonstrate meaningful connections or conclusions related to a theme.	<b>KC1.a.4.i:</b> Locate and collect a variety of sources to curate collections of artifacts, reusing content from curated information related to a theme.	<b>KC1.a.6.m:</b> Locate and collect resources from a variety of sources and organize content into themes in ways that are coherent and shareable to multiple audiences that	<b>KC1.a.8.h:</b> Locate, collect, and evaluate resources from a variety of sources and organize content into themes in ways that are coherent and shareable to multiple audiences.

			demonstrates meaningful connections or conclusions.	
<b>Standard: KC2 - Students produce creative artifacts and make meaningful learning experiences from curated knowledge for themselves and others.</b>				
	<b>Performance Indicators (By Grade Band)</b>			
<b>Learning Priority</b>	<b>K-2 (e)</b>	<b>3-5 (i)</b>	<b>6-8 (m)</b>	<b>9-12 (h)</b>
<b>KC2.a Produce creative artifacts</b>	KC2.a.1.e: Explore a variety of teacher-selected resources, and with assistance, create an artifact that demonstrates connections to their learning.	KC2.a.2.i: Explore, select, and utilize sources of curated information to produce creative artifacts to make meaningful learning experiences.	KC2.a.3.m: Explore, select, and utilize multiple sources of curated information to produce creative artifacts for multiple audiences demonstrating meaningful connections or conclusions.	KC2.a.4.h: Explore, select, and utilize multiple sources of curated information to produce creative artifacts for multiple audiences, demonstrating meaningful connections or conclusions and consider the value of collective intelligence, and how it works both online and offline.
<b>KC2.b Build knowledge by actively exploring real-world issues and problems</b>	KC2.b.1.e: Build knowledge to connect ideas to own interests, previous knowledge, and experience.	KC2.b.4.i: Utilize prior and background knowledge as context for new learning.	KC2.b.7.m: Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.	KC2.b.10.h: Use knowledge, information skills and digital resources/tools to engage in public conversation and debate around issues of common concern.
	KC2.b.2.e: With guidance from an educator, students explore real-world issues and problems and share their	KC2.b.5.i: Connect learning to age-appropriate real-world issues and problems and begin to	KC2.b.8.m: Explore real-world issues and problems and actively pursue an understanding of them and begin to develop	KC2.b.11.h: Build knowledge by actively exploring real-world issues and problems, independently developing

	ideas about them with others.	develop questions for problem solving.	answers and solutions for problem solving.	ideas and theories and pursuing answers and solutions
	<b>KC2.b.3.e</b> Identify and discuss real-world problems and issues with guidance from an educator.	<b>KC2.b.6.i:</b> Explore real-world problems and issues and collaborate with others to find answers or solutions.	<b>KC2.b.9.m:</b> Create products that apply to authentic, real-world contexts and issues.	<b>KC2.b.12.h:</b> Independently create products that apply to authentic, real-world contexts and issues.

# Content Area: Innovative Designer (ID)

**Discipline: Information and Technology Literacy (ITL)**

**Content Area: Innovative Designer (ID)**

**Standard: ID.1 - Students use a variety of digital tools and resources to identify and solve authentic problems.**

	Performance Indicators (By Grade Band)			
Learning Priority	K-2 (e)	3-5 (l)	6-8 (m)	9-12 (h)

<b>ID1.a: Find authentic problems in local and global contexts.</b>	<b>ID1.a.1.e:</b> Identify and describe a problem or challenge within the classroom or home environment. Explain why it is a problem.	<b>ID1.a.2.e:</b> Identify and describe problems or challenges that affect the community. Analyze all conditions that make it a problem.	<b>ID1.a.3.m:</b> Collaborate with others outside of the classroom to identify and describe problems and challenges on a global perspective.	<b>ID1.a.4.h:</b> Collaboratively, analyze the community locally and globally to make change socially. Explain the depth and breadth of problem and analyze conditions for improvement.
<b>ID1.c: Exhibit a tolerance for ambiguity, perseverance and the capacity to work with authentic, open-ended problems.</b>	<b>ID1.c.1.e:</b> Demonstrate perseverance when working to complete a challenging task.	<b>ID1.c.2.e:</b> Demonstrate perseverance when working with authentic, open-ended problems.	<b>ID1.c.3.m:</b> Demonstrate an ability to persevere through authentic, open-ended problems by applying abstract concepts with greater ambiguity.	<b>ID1.c.4.h:</b> Exhibit a desire to identify and solve ambiguous problems and apply abstract concepts, in order to solve authentic, open-ended problems for a group of stakeholders.
<b>Standard: ID.2 - Students use a variety of technologies within a design process to create new, useful and imaginative solutions.</b>				
	<b>Performance Indicators (By Grade Band)</b>			
<b>Learning Priority</b>	<b>K-2 (e)</b>	<b>3-5 (i)</b>	<b>6-8 (m)</b>	<b>9-12 (h)</b>
<b>ID2.a: Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts.</b>	<b>ID2.a.1.e:</b> Ask questions to seek understanding of an issue or problem and suggest possible solutions.	<b>ID2.a.2.i:</b> Explore and practice how a formal design process works to generate ideas, consider solutions, plan to solve a problem/create innovative products to share with others.	<b>ID2.a.3.m:</b> Use a formal design process to generate ideas, create innovative products, and test theories as possible solutions.	<b>ID2.a.4.h:</b> Know and use a deliberate design process for generating ideas, testing theories, and creating innovative artifacts.

<b>ID2.b: Select and use digital resources to plan and manage a design process that considers design constraints and calculated risks.</b>	<b>ID2.b.1.e:</b> Use age appropriate digital resources to employ guided practice of a formal design process.	<b>ID2.b.2.i:</b> Use age appropriate digital resources to plan and manage the design process.	<b>ID2.b.3.m:</b> Select and use digital resources to support a formal design process and expand understanding to identify constraints, trade-offs and to weigh risks as they apply to authentic problems.	<b>ID2.b.4.h:</b> Select and use digital resources to plan and manage a design process that considers design constraints and calculated risks as they apply to authentic problems.
<b>ID2.c: Develop, test and refine prototypes as part of a cyclical design process.</b>	<b>ID2.c.1.e:</b> Use a design process to create, test and redesign if necessary.	<b>ID2.c.2.i:</b> Engage in an iterative process to develop and test prototypes and reflect on the role that trial and error plays in the design process.	<b>ID2.c.3.m:</b> Engage in an iterative process to develop and test prototypes; understand and appreciate that failures or setbacks are opportunities for growth and improvement.	<b>ID2.c.4.h:</b> Engage in an iterative process to develop and test prototypes; apply this process to authentic markets, determine the metrics for success and progress monitoring and understand that no product is final or perfect.

# Content Area: Computational Thinker (CT)

**Discipline: Information and Technology Literacy (ITL)**

**Content Area: Computational Thinking (CT)**

**Standard: CT1 - Students develop and employ strategies for understanding and solving problems.**

	Performance Indicators (By Grade Band)			
Learning Priority	K-2 (e)	3-5 (i)	6-8 (m)	9-12 (h)
<b>CT1.a:</b> Identify, define and interpret problems where digital tools can assist in finding solutions.	<b>CT1.a.1.e:</b> Identify a problem and select appropriate digital tools to explore and find solutions.	<b>CT1.a.2.i:</b> Identify and explore problems by selecting digital tools to analyze and represent data.	<b>CT1.a.3.m:</b> Define and develop an authentic problem to solve using data analysis,	<b>CT1.a.4.h:</b> Create and articulate a precise and thorough description of a problem designed to utilize digital



			<b>modeling, or algorithmic thinking.</b>	tools, data analysis, abstract modeling, or algorithmic thinking to facilitate a solution.
<b>CT1.b:</b> Collect data and identify and use digital tools to analyze and represent the data to find solutions.	<b>CT1.b.1.e:</b> Utilize an age-appropriate digital tool to collect, organize and represent data.	<b>CT1.b.2.i:</b> Utilize an age-appropriate digital tool to collect and represent data to discuss results and share conclusions.	<b>CT1.b.3.m:</b> Select an effective digital tool to collect, analyze, and represent data to solve authentic problems and make decisions.	<b>CT1.b.4.h:</b> Select an effective digital tool to collect, analyze, and represent data to solve problems, make decisions and reflect on decisions made.
<b>CT1.c:</b> Break problems into smaller parts, identify key information, and develop descriptive models.	<b>CT1.c.1.e</b> Break a simple problem into smaller parts, identify key information, and brainstorm ways to solve the problem with assistance from an educator.	<b>CT1.c.2.i:</b> Break problems into smaller parts, identify patterns and key information, and brainstorm ways to solve the problem independently or collaboratively.	<b>CT1.c.3.m:</b> Separate complex problems into component parts, identify patterns and differences and develop descriptive models to facilitate problem solving.	<b>CT1.c.4.h:</b> Evaluate the problem solving process and algorithms of others, synthesize this information to create the most effective and efficient way to solve a problem.

# Content Area: Creative Communicator (CC)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Creative Communicator (CC)				
Standard: CC1 - Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.				
	Performance Indicators (By Grade Band)			
Learning Priority	K-2 (e)	3-5 (i)	6-8 (m)	9-12 (h)

<b>CC1.a:</b> Choose appropriate platforms and digital tools.	<b>CC1.a.1.e:</b> Use age appropriate digital tools for producing new creations or published communications with teacher guidance.	<b>CC1.a.2.i:</b> Evaluate and utilize the features and functions of a variety of digital tools for producing new creations or communications with teacher support.	<b>CC1.a.3.m:</b> Evaluate and utilize the features and functions of a variety of digital tools and platform to create, share and communicate content effectively.	<b>CC1.a.4.h:</b> Evaluate and determine appropriate platforms and digital tools to create, communicate, and share content effectively with an authentic audience.
<b>CC1.b:</b> Create or remix digital resources.	<b>CC1.b.1.e:</b> Define original and remixed digital work. Use digital tools, with teacher guidance, to create original and remixed work.	<b>CC1.b.2.i:</b> Learn and apply strategies to responsibly remix creative work.	<b>CC1.b.3.m:</b> Remix digital resources responsibly into new, creative work.	<b>CC1.b.4.h:</b> Create works for an authentic audience that reflect responsible remixing of digital resources.
<b>CC1.c:</b> Communicate effectively using a variety of digital tools.	<b>CC1.c.1.e:</b> Communicate ideas using a variety of digital tools with teacher guidance.	<b>CC1.c.2.i:</b> Create digital artifacts to communicate ideas clearly.	<b>CC1.c.3.m:</b> Communicate complex ideas clearly using various digital tools to an authentic audience.	<b>CC1.c.4.h:</b> Analyze and communicate complex ideas, data and solutions using digital tools to communicate to an authentic audience.
<b>Standard: CC2 - Students publish and present content customized for their audience(s), purpose, and task.</b>				
	<b>Performance Indicators (By Grade Band)</b>			
<b>Learning Priority</b>	<b>K-2 (e)</b>	<b>3-5 (i)</b>	<b>6-8 (m)</b>	<b>9-12 (h)</b>
<b>CC2.a:</b> Choose the appropriate medium and digital tools to publish and present.	<b>CC2.a.1.e:</b> Explore a variety of digital tools to create and communicate an idea.	<b>CC2.a.3.i:</b> Utilize digital tools to create, share and communicate work effectively.	<b>CC2.a.5.m:</b> Select appropriate digital mediums and tools to create, share and communicate their work effectively to the authentic audience.	<b>CC2.a.7.h:</b> Identify and choose digital mediums and tools to build communication strategies to create and share work authentically, and receive feedback.

	<b>CC2.a.2.e:</b> Discuss different audiences and be able to share an appropriate perspective.	<b>CC2.a.4.i:</b> Learn about audience and consider an expected audience when selecting a medium, creating digital artifacts and content presentations and collaborating with others.	<b>CC2.a.6.m:</b> Publish and/or present content designed for specific audiences and select the medium , including the selection of platforms that will effectively convey ideas to specific audiences.	<b>CC2.a.8.h:</b> Intentionally align medium with message, audience, and purpose of their communication or collaboration to create, publish, and present successfully.
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# Content Area: Global Collaborator (GC)

**Discipline: Information and Technology Literacy (ITL)****Content Area: Global Collaborator (GC)****Standard: GC1 - Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in culturally responsive local and global teams.**

	<b>Performance Indicators (By Grade Band)</b>			
<b>Learning Priority</b>	<b>K-2 (e)</b>	<b>3-5 (i)</b>	<b>6-8 (m)</b>	<b>9-12 (h)</b>
<b>GC1.a: Use digital tools to connect with learners from a variety of backgrounds and cultures.</b>	<b>GC1.a.1.e:</b> Use digital tools and resources to understand similarities and differences of others in the classroom and beyond.	<b>GC1.a.2.i:</b> Use digital tools to work with an authentic audience from diverse backgrounds or cultures.	<b>GC1.a.3.m:</b> Use digital tools to interact with others to develop a richer understanding of diverse perspectives and cultures.	<b>GC1.a.4.h:</b> Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.
<b>GC1.b: Contribute constructively on project teams.</b>	<b>GC1.c.1.e:</b> Learn a variety of roles within a team to cooperate.	<b>GC1.c.2.i:</b> Take on a variety of roles within a team using age-appropriate digital tools to complete a project or solve a problem.	<b>GC1.c.3.m:</b> Contribute to team goals and determine their role on a team based on their knowledge of digital tools and content, as well as personal preference.	<b>GC1.c.4.h:</b> Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
<b>GC1.c: Contribute to the exchange of ideas within and beyond the learning community.</b>	<b>GC1.e.1.e:</b> Share interests and experiences and respect the differing interests and experiences of others.	<b>GC1.e.2.i:</b> Use appropriate digital tools to work with others to share interests and experiences and respect the differing interests and experiences of others.	<b>GC1.e.3.m:</b> Select and leverage appropriate digital tools to share interests and experiences and respect the differing interests and experiences of others.	<b>GC1.e.4.h:</b> Contribute to and collect from the exchange of ideas within and beyond the learning community.

**Standard: GC2 -Students use digital tools to connect with a global network of learners and engage with issues that impact local and global communities.**

<b>GC2.a: Use collaborative digital resources to examine issues and problems from diverse local and global perspectives.</b>	<b>GC2.b.1.e:</b> Use digital tools to communicate with others and to look at problems from diverse local and global perspectives.	<b>GC2.b.2.i:</b> Select and utilize collaborative digital tools to connect with others - including peers, experts and community members - to explore diverse local and global perspectives.	<b>GC2.b.3.m:</b> Leverage collaborative digital tools to connect with others - including peers, experts, and community members - to learn about issues and problems or to gain diverse local and global perspectives.	<b>GC2.b.4.h:</b> Leverage collaborative digital tools to work with others - including peers, experts or community members - to learn about issues and problems and to solicit diverse local and global perspectives to find solutions for social change.
<b>GC2.b: Explore local and global issues and use collaborative digital resources to investigate and develop solutions.</b>	<b>GC2.d.1.e:</b> Use age-appropriate digital tools to work together to understand issues and recommend solutions.	<b>GC2.d.2.i:</b> Collaborate with others using digital tools to explore local and global issues and solutions.	<b>GC2.d.3.m:</b> Select and use collaborative digital tools to work with others to explore local and global issues and investigate solutions.	<b>GC2.d.4.h:</b> Explore and analyze local and global issues and leverage collaborative digital tools to work with others to investigate and develop solutions.

## Works Cited

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Resources for 9-12: [https://www.adelaide.edu.au/rsd/framework/RSD7\\_13Nov\\_15\\_JM.pdf](https://www.adelaide.edu.au/rsd/framework/RSD7_13Nov_15_JM.pdf)

[Information and Technology Standards: 1998](#) (WI ITLS) Should we keep this old one in the list?

AASL: American Association of School Librarians: [Standards for the 21st Century Learner](#) (AASL)

[Wisconsin Standards for Business and Information Technology](#)